



US005188368A

United States Patent [19]

Ryan

[11] **Patent Number:** **5,188,368**[45] **Date of Patent:** **Feb. 23, 1993**[54] **ELECTRONIC GAME APPARATUS**[75] Inventor: **Paul T. Ryan**, Cambridgeshire, Great Britain[73] Assignee: **Saitek Limited**, Kowloon, Hong Kong[21] Appl. No.: **691,028**[22] PCT Filed: **Oct. 25, 1990**[86] PCT No.: **PCT/GB90/01641**§ 371 Date: **Jun. 25, 1991**§ 102(e) Date: **Jun. 25, 1991**[87] PCT Pub. No.: **WO91/06352**PCT Pub. Date: **May 16, 1991**[30] **Foreign Application Priority Data**

Oct. 25, 1989 [EP] European Pat. Off. 89311024.7

[51] Int. Cl.⁵ **A63F 3/02**[52] U.S. Cl. **273/237; 340/323 R**[58] Field of Search **273/237, 238; 340/323 R**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—William H. Grieb*Attorney, Agent, or Firm*—Townsend and Townsend[57] **ABSTRACT**

An electronic game apparatus for determining the presence and optionally the identity of playing pieces. Each playing piece (10) is provided with a resonator circuit (12,14,16), which may be tuned so that each playing piece or type or piece has a unique resonant frequency. A board (2) defining a number of particular playing positions is provided with transmit and receive coils (4,6) underneath it to stimulate the resonator circuit of a piece and to sense the resonant signal respectively. An amplifier is provided between the two sets of coils to amplify the signal generated by the resonant circuit. A resonant signal results if a playing piece is placed on a particular position on the board (2). The frequency of this signal is detected and may then be determined and the piece thereby identified.

10 Claims, 4 Drawing Sheets